

We Claim:

1. A method of treating an infection caused by a drug resistant microbe in a subject comprising administering a drug to which the microbe is resistant and an inhibitor of an AcrAB-like efflux pump to the subject such that the infection is treated.

2. The method of claim 1, wherein the drug is an antibiotic.

3. The method of claim 2, wherein the antibiotic is a fluoroquinolone.

4. The method of claim 1, wherein the drug is a non-antibiotic agent.

5. The method of claim 4, wherein the non-antibiotic agent is triclosan.

6. The method of claim 1, wherein the inhibitor of an AcrAB-like efflux pump is administered prophylactically.

7. The method of claim 1, wherein the inhibitor of an AcrAB-like efflux pump is administered therapeutically.

8. A method of treating a fluoroquinolone resistant infection in a subject comprising administering a fluoroquinolone and an inhibitor of an AcrAB-like efflux pump to the subject to thereby treat a fluoroquinolone resistant infection.

9. A method of screening for compounds which reduce drug resistance comprising: contacting a microbe comprising an AcrAB-like efflux pump with a test compound and a indicator compound and measuring the effect of the test compound on efflux of the indicator compound to thereby identify compounds which reduce drug resistance by inhibiting the activity of an AcrAB efflux pump.

10. The method of claim 9, wherein the microbe is highly drug resistant.

11. The method of claim 9, wherein the microbial cell is highly resistant to fluoroquinolones.

12. The method of claim 9, wherein the microbial cell comprises at least one chromosomal mutation in a drug target gene.

13. The method of claim 12, wherein the mutation is present in a gene selected from the group consisting of: gyrase, topoisomerase, and *fabI*.

14. The method of claim 6, comprising detecting the ability of the compound to reduce fluoroquinolone resistance in a microbe.

15. A method of screening for compounds which specifically inhibit the activity of an AcrAB-like efflux pump comprising:

i) contacting a microbe comprising an AcrAB-like efflux pump with a test compound and an indicator compound;

ii) testing the ability of the compound to inhibit the activity of an AcrAB-like efflux pump;

iii) testing the ability of the compound to inhibit the activity of a non-AcrAB efflux pump;

iv) and identifying compounds which inhibit the activity of an AcrAB-like efflux pump and non a non -AcrAB-like efflux pump to thereby identify compounds which specifically block an AcrAB-like efflux pump.

16. A method of enhancing the antimicrobial activity of a drug comprising: contacting a microbe that is resistant to one or more drugs with a drug to which the microbe is resistant and an inhibitor of an AcrAB-like efflux pump to thereby enhance the antimicrobial activity of a drug.

17. The method of claim 16 wherein the microbe is contacted with a compound selected from the group consisting of: cyclohexadine, quaternary ammonium compounds, pine oil, triclosan, and compound generally regarded as safe.

18. The method of claim 16, wherein the step of contacting occurs *ex vivo*.

19. The method of claim 16, wherein the microbe is contacted with a  
5 non-antibiotic agent and an inhibitor of an AcrAB-like efflux pump.

20. The method of claim 19, wherein the non-antibiotic agent is selected  
from the group consisting of: chlorhexadine, quaternary ammonium compounds, pine  
oil, triclosan, and compound generally regarded as safe (GRAS).

10

21. A pharmaceutical composition comprising an inhibitor of an AcrAB-  
like efflux pump and an antibiotic.

22. The composition of claim 20, further comprising a pharmaceutically  
15 acceptable carrier.

23. The composition of claim 21, wherein the antibiotic is a  
fluoroquinolone.

20 24. The composition of claim 22, wherein the pharmaceutically  
acceptable carrier is an inhibitor of the pump.